COVERED SOURCE PERMIT MINOR MODIFICATION APPLICATION REVIEW

Modification Application No. 0241-07

APPLICANT:	Ameron International Corporation, dba Ameron Hawaii Ameron Hawaii Kapaa Quarry Stone Processing Facility and Associated Concrete Batch Plant
MAILING ADDRESS:	P.O. Box 29968 Honolulu, Hawaii 96820
RESPONSIBLE OFFICIAL:/POC	Ms. Eileen L. Mori-Mishima Vice President, Human Resources 808-266-2673
LOCATION	Kapaa Quarry 909 Kalanianaole Hwy. Kailua, Oahu 96734 UTM Coordinates: (Zone 4) 2,366,378 m North; 626,700 m East
POINT OF CONTACT	Ms. Linda Goldstein Manager, Environmental and Community Relations 808-266-2673
SIC	1411 - Dimension stone 3273 - Ready mixed concrete

Proposed Modification:

This application is for a minor modification to existing covered source permit (CSP) No. 0241-01-C. The application seeks to permit the replacement of the existing primary crusher and secondary scalper screen. The existing crusher and screen will be replaced with a new crusher and screen of identical 600 TPH capacity. The modification is classified as a minor modification for the following reasons:

1. Does not increase the emissions of any air pollutant above the permitted emission limits;
2. Does not result in or increase the emissions of any air pollutant not limited by permit to levels equal to or above:

    a. Five hundred (500) pounds per year of a hazardous air pollutant;
    b. Three hundred (300) pounds per year of lead;
    c. Twenty-five (25) percent of significant amounts of emission as defined in section 11-60.1-1, paragraph (1) in the definition of "significant"; or
    d. Two (2) tons per year of each regulated air pollutant not already identified above;

3. Does not violate any applicable requirement;
4. Does not involve significant changes to existing monitoring requirements or any relaxation or significant change to existing reporting or recordkeeping requirements in the permit. Any change to the existing monitoring, reporting, or recordkeeping requirements that reduces the enforceability of the permit is considered a significant change;
5. Does not require or change a case-by-case determination of an emission limitation or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

6. Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement, and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    a. A federally enforceable emissions cap assumed to avoid classification as a modification pursuant to any provision of Title I of the Clean Air Act or Hawaii Administrative Rules, Chapter 11-60.1, subchapter 7; and
    b. An alternative emissions limit approved pursuant to regulations promulgated pursuant to Section 112(i)(5) of the Act or subchapter 9; and

7. Is not a modification pursuant to any provision of Title I of the Clean Air Act.

The facility currently consists of a stone processing facility and a concrete batch plant. The primary functions of the facility are quarrying and aggregate processing, classified as Standard Industrial Classification Code (SICC) 1411. The concrete batch plant is classified as SICC 3273. No changes have been proposed to the remainder of the permitted equipment.

Permit Amendments

The amendments to the permit as a result of the modification are:

Attachment II, Special Condition A.1.a will be changed from:

a. Primary/Secondary Plant

    i. One (1) 600 TPH Missouri Rogers dynactuator surge vibratory feeder (4½'x16');
    ii. One (1) 600 TPH Kueken primary jaw crusher (60'x48'), Model 200;
    iii. One (1) 600 TPH Symons standard cone crusher (5 ½');
    iv. One (1) 600 TPH Hewitt-Robins secondary scalper (5'x12');
    v. One (1) 600 TPH Hewitt-Robins 3-deck screen (6'x16');
    vi. One (1) 925 TPH Metso LT140 Jaw Crusher (CR10), with 540 hp diesel engine (DE4);
    vii. One (1) 550 TPH Metso GPS 500S Cone Crusher (CR11), with 1,490 hp diesel engine (DE3);
    viii. Various conveyors; and
    ix. Water spray system.

to the following:

a. Primary/Secondary Plant

    i. One (1) 600 TPH Missouri Rogers dynactuator surge vibratory feeder (4½'x16');
    ii. One (1) 600 TPH Metso Nordberg primary jaw crusher (55'x47'), Model C150;
    iii. One (1) 600 TPH Symons standard cone crusher (5 ½');
    iv. One (1) 600 TPH Hewitt-Robins secondary scalper (5'x12');
    v. One (1) 600 TPH Hewitt-Robins MV-11 Classifying Screen;
    vi. One (1) 925 TPH Metso LT140 Jaw Crusher (CR10), with 540 hp diesel engine (DE4);
    vii. One (1) 550 TPH Metso GPS 500S Cone Crusher (CR11), with 1,490 hp diesel engine (DE3);
    viii. Various conveyors; and
    ix. Water spray system.

Process Description

PRIMARY/SECONDARY PLANT

The haul trucks transport the rock to the Primary/Secondary Plant. The load is dampened by water spray then unloaded into the hopper of Primary/Secondary Plant. The material moves through the feeder to the primary jaw crusher, a scalping screen, and the secondary crusher. Approximately 20% is B-grade material, which is stockpiled or re-screened (via 2 conveyors and one radial stack), while 80% is conveyed (one conveyor and one radial stack) to the surge stockpile. An underground conveyor transfers the surge material to the Tertiary Crushing Plant, which produces various products and feed material for the Mansand Plant.

Operational Limits:

The existing stone processing plant was limited by a permit condition to operate no more than 4,992 hours of operation per rolling twelve (12) month period, and no more than sixteen (16) hours of operation per day. The limits will be transferred to the primary/secondary plant.

Applicable Requirements:

Hawaii Administrative Rules (HAR):
Chapter 11-59 Ambient Air Quality Standards
Chapter 11-60.1 Air Pollution Control
- Subchapter 1 General Requirements
- Subchapter 2 General Prohibitions
  - 11-60.1-31 Applicability
  - 11-60.1-32 Visible Emissions
  - 11-60.1-33 Fugitive Dust
  - 11-60.1-37 Process Industries
  - 11-60.1-38 Sulfur Oxides from Fuel Combustion
- Subchapter 5 Covered Sources
- Subchapter 6 Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
  - 11-60.1-111 Definitions
  - 11-60.1-112 General Fee Provisions for Covered Sources
  - 11-60.1-113 Application Fees for Covered Sources
  - 11-60.1-114 Annual Fees for Covered Sources
- Subchapter 8 Standards of Performance for Stationary Sources
  - 11.60.1-161 Standards of Performance for Non-metallic Mineral Processing Plants
- Subchapter 10 Field Citations

New Source Performance Standards:

A portion of the equipment is subject to the following 40 Code of Federal Regulations (CFR) Part 60
- -Subpart A General Provisions
- -Subpart OOO Standards of Performance for Non-metallic Mineral Processing Plants

New Equipment - Not Applicable:

40 CFR 60 Subpart OOO applies to fixed crushed stone plants with capacities greater than twenty five (25) TPH that commence construction, reconstruction, or modification after August 31, 1983. The Metso Nordburg primary jaw crusher 1 (manufactured in 2012) is a like kind replacement for the Kueken primary jaw crusher 1 (manufactured in 1965). The Hewitt-Robins MV-11 Classifying Screen (manufactured in 2014) is a like kind replacement for the Hewitt-Robins three-deck (3-deck) screen (manufactured in 1965). Although the Metso Nordburg primary jaw crushers capacity is greater than twenty five (25) TPH, per 40 CFR 60.670(d)(1), Subpart OOO does not apply since the units were equal or smaller in size than the units replaced. Therefore, none of the new equipment is subject to Subpart OOO.

Existing Equipment - Not Applicable:
40 CFR 60 Subpart OOO applies to fixed crushed stone plants with capacities greater than twenty five (25) TPH that commence construction, reconstruction, or modification after August 31, 1983. The Nordburg HP300SX cone crusher 6 (manufactured in 1996) was a like kind replacement for the Nordburg Gyradisc 54" crusher 6 (manufactured in 1964). The Nordburg HP300SX cone crusher 5 (manufactured in 1996) was a like kind replacement for the Nordburg Gyradisc 54" crusher 5 (manufactured in 1964). Although the Nordburg HP300SX cone crushers have capacities greater than 25 TPH, per 40 CFR 60.670(d)(1), Subpart OOO does not apply since the units were equal or smaller in size than the units replaced. (Correspondences dated January 24, 1997; February 26, 1997; April 11, 1997; July 24, 1997; July 31, 1997; September 4, 1997) Therefore, none of the existing equipment is subject to Subpart OOO.

Existing Equipment - Applicable:
40 CFR, 60 Subpart OOO is an applicable requirement for both of the crushers added to the permit issued on May 21, 2010. The portion of the subpart that pertains to the new crushers is for equipment manufactured after August 31, 1983, but before April 22, 2008. Pertinent requirements inculde a fifteen (15) percent visible emissions limit for the crushers and annual performance testing to demonstrate compliance with the visible emissions limit

Prevention of Significant Deterioration (PSD):
PSD applies to new stationary sources in an attainment area which emit or have the potential to emit 250 TPY (or 100 TPY for 28 named source categories) of any regulated pollutant, to a major stationary source making a major modification involving a significant net emissions increase (e.g., fifteen (15) tons per year PM_{10} [HAR 11-60.1-1]), or to a non-major source undergoing a modification that is major by itself.

The replacement of the existing 600 TPH Kueken Crusher with a new 600 TPH Metso Nordberg Crusher of identical capacity will not increase potential emissions above the significant net emissions increase for particulate matter. Therefore, a PSD review is not required for the minor modification.

Best Available Control Technology (BACT):
A BACT analysis is required for new sources or modifications to existing sources that would result in a significant net emissions increase as defined in HAR, Section 11.60.1-1. The replacement of the primary crusher with one of equal capacity will not increase potential emissions past significant net emissions levels for particulate matter. Therefore, a BACT analysis is not required for the modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP):
The facility is not subject to any NESHAP requirement as there are no applicable standards in 40 CFR Part 61.

Maximum Available Control Technology (MACT) Standards:
The facility is not subject to any MACT standards since the facility is not a major source of hazardous air pollutants and does not belong to a source category for which a standard has been promulgated under 40 CFR, Part 63.

Compliance Assurance Monitoring (CAM):
Applicability of the CAM Rule (40 CFR, Part 64) is determined on a pollutant specific basis for each affected emission unit. Each determination is based upon a series of evaluation criteria. In order for a source to be subject to CAM, each source must:

- Be located at a major stationary source per Title V of the Clean Air Act Amendments of 1990;
- Be subject to federally enforceable applicable requirements;
- Have pre-control device potential emissions that exceed applicable major source thresholds;
- Be fitted with an "active" air pollution control device; and
- Not be subject to certain regulations that specifically exempt it from CAM.

Emission units are any part or activity of a stationary source that emits or has the potential to emit any air pollutant.

The facility is a major covered source and the stone processing equipment has pre-control device potential emissions that exceed applicable major source thresholds. The stone processing equipment has "active" air pollution control devices (water sprays and baghouses). Thus, the stone processing equipment is subject to CAM. See previous renewal review for CAM plan review.

Air Emissions Reporting Requirements:
The facility is currently a type B source pursuant to 40 CFR Part 51, Subpart A, Air Emissions Reporting Requirements. The replacement of the primary crusher will not increase emissions, and the facility will remain a type B source.

Insignificant Activities/Exemptions:
No modifications to the insignificant activity list were proposed in conjunction with the application. The insignificant activity list remains unchanged from the last permit renewal. Refer to review of permit renewal for list of insignificant activities.

Alternate Operating Scenarios:
No additional alternate operating scenarios have been proposed by the applicant. The existing permit allows for the replacement of a crusher or screen with equipment of the same make, model, and size.

Project Emissions:
Emissions from the existing primary/secondary plant were based on the maximum production rate of 600 tons per hour. The new primary crusher and screen are also rated at 600 tons per hour. Therefore, the calculated emissions for the primary/secondary plant are identical to the existing primary/secondary plant. The emissions from the facility at the previous permit modification were:

Pollutant	Emissions (tpy)
	Total
SO_2	0.13
NO_x	57.41
CO	19.27
VOC	0.80
PM_{10}	260.75
Total HAPs	2.07

Synthetic Minor Applicability:
The facility is a major source. Since the facility is a major source, it is not a synthetic minor source.

Air Quality Assessment:
The existing equipment was previously modeled for the initial Title V permit, and thus was not modeled for the minor modification. The new crusher and screen emissions are not point sources and thus are not required to be modeled.

Significant Permit Conditions:
No significant permit conditions have been added to the current permit due to this minor modification.

Conclusion:
Based on information submitted by Ameron International Corporation, the facility complies with all state and federal standards with regard to air pollution. Recommend approval of covered source permit modification subject to forty-five-day (45-day) EPA review.

Joseph Baumgartner
April 9, 2015